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2. (Amended) The device according to claim 1, wherein said controller halts output of said power converter in a case where a current value detected by said detector exceeds the threshold value.

3. (Amended) The device according to claim 1, wherein said controller reduces output power of said power converter in a case where a current value detected by said detector exceeds the threshold value.

REMARKS

This application has been reviewed in light of the Office Action dated July 17, 2002. Claims 1 to 3 have been amended to define more clearly what Applicants regard as their invention. Claims 1 to 9 are pending in the application, of which Claim 1 is independent. Favorable reconsideration is requested.

Claims 1 to 9 were rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite. Without conceding to the propriety of this rejection, and while Applicants strongly believe that the phrase "predetermined value" is entirely appropriate in the claims, Applicants nevertheless have amended claims 1 to 3 as deemed necessary to obviate the rejection. Support for the amendment can be found on page 11, line 21 to page 12, line 4 of the specification. It is believed that the Section 112, second paragraph rejection has been overcome, and its withdrawal is therefore respectfully requested.

Claims 1 to 3, 7 and 8 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,300,158 (Simburger) in view of U.S. Patent No. 6,262,558 (Weinberg).

Claims 4 and 6 were rejected under Section 103(a) over Simburger in view Weinberg, and further in view of U.S. Patent No. 5,951,785 (Uchihashi). Claim 5 was rejected under Section 103(a) over Simburger and Weinberg in view of U.S. Patent No. 5,569,998 (Cowan). Claim 9 was rejected under Section 103(a) over Simburger and Weinberg in view of U.S. Patent No. 4,409,537 (Harris). The grounds of rejection are respectfully traversed.

As the Office Action concedes, Simburger does not disclose or suggest a detector and a controller as recited in Claim 1. The Examiner relies on Weinberg to provide those elements of the claim. It will be demonstrated that Weinberg fails to meet the defects and deficiencies of Simburger.

Weinberg relates to a solar array for satellite systems. An apparent object of Weinberg is to allow the solar array to operate at a maximum power point (MPP) (as opposed to maintaining current within safe ranges). Weinberg merely refers to a controller for controlling switches 207 connected to solar batteries 203 in accordance with a current value of a charging current (of a battery 3) detected by a current detector 211. The current detector 211 is seen to monitor merely battery charging current, and is not seen to be used in combination with a plurality of switches and a switch controller referred to by the Examiner in the Office Action. The plurality of switches referred to at Weinberg, Column 3, lines 31 to 41 and lines 45 to 48 act merely to maintain the solar array at its MPP regardless of the current constraints of the output connectors or current path. While Weinberg may refer to controlling charging of the battery 3, that disclosure is not seen to

teach or suggest a power converter for converting output power of a solar battery, as recited in Claim 1.

Moreover, Applicants respectfully submit that nothing has been found, or pointed out, in either Simburger and Weinberg, that would teach or suggest a controller that controls output of a power converter when the current value exceeds a threshold based on maximum rated current value of the output connector or current path.

Accordingly, even if those references were to be combined in the manner proposed in the Office Action (which, in any event, is not admitted to have been obvious or technically feasible) the resulting combination still would not teach or suggest those features.

Claim 1 is therefore deemed clearly patentable over Simburger and Weinberg, whether considered separately or in combination.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above as references against the independent claim herein. That claim is therefore believed patentable over the art of record.

The dependent claims each depend from independent Claim 1 discussed above, and also are believed patentable for the same reasons as in Claim 1. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Amended) A solar battery device comprising:
 - a solar battery;
 - a power converter, arranged to convert electric power outputted from the solar battery;
 - an input connector, arranged to input electric power from outside said device;
 - an output connector, arranged to collect the electric power inputted by said input connector and the electric power outputted by said power converter, and output the collected electric power to outside said device through a current path;
 - a detector, arranged to detect a current value of an electric current of said output connector; and
 - a controller, arranged to control output of said power converter when the current value detected by said detector exceeds a threshold value which is predetermined [value] based on a maximum rated current value of said output connector or the current path.
2. (Amended) The device according to claim 1, wherein said controller halts output of said power converter in a case where a current value detected by said detector exceeds the threshold [a predetermined] value.

3. (Amended) The device according to claim 1, wherein said controller reduces output power of said power converter in a case where a current value detected by said detector exceeds the threshold [a predetermined] value.